

**Serial No. 10/729,202**  
**Atty. Doc. No. 2001P07021WOUS**

Amendments To the Claims:

1. (cancelled).
2. (cancelled).
3. (currently amended) A method according to Claim ~~4~~13, wherein the priority is automatically defined as a function of the size of the difference in the characteristic values of the measuring signal which were determined in two successive measuring periods.
4. (currently amended) A method according to claim ~~4~~13, wherein the priority is automatically defined as a function of a trend analysis performed by the computer system of the characteristic values of the measuring signal which were determined in successive measuring periods.
5. (cancelled).
6. (currently amended) A method according to Claim ~~4~~13, for use in automation technology.
7. (cancelled)
8. (cancelled).
9. (previously presented) A method according to claim 3, wherein the priority is automatically defined as a function of a trend analysis performed by the computer system of the characteristic values of the measuring signal which were determined in successive measuring periods.
10. (cancelled).
11. (cancelled).
12. (cancelled).

**Serial No. 10/729,202****Att'y. Doc. No. 2001P07021WOUS**

13. (previously presented) A method for monitoring at least one measuring signal, for use in automation technology, in which method a computer system cyclically determines a characteristic value of the measuring signal in measuring periods which are separated from one another by a time interval, whereby

- a priority is defined automatically,
  - said priority is assigned to the measuring signal and
  - the time interval between the measuring periods is specified as a function of the priority,
- wherein

a measuring period has a length at least equaling the order of magnitude of a period of the measuring signal if the measuring signal is an alternating period signal, and wherein

a length of a measuring period is a discrete sampling instant at which a momentary value of the measuring signal is determined, the characteristic value including the determined momentary value if the measuring signal is a signal having an identical magnitude.

14. (previously presented) The method according to claim 13, wherein the priority is automatically defined as a function of a trend analysis performed by the computer system of the characteristic values of the measuring signal which were determined in successive measuring periods, wherein the trend analysis is based on fuzzy logic.

15. (previously presented) A method for monitoring at least one measuring signal, for use in automation technology, in which method a computer system cyclically determines a characteristic value of the measuring signal in measuring periods which are separated from one another by a time interval, whereby

- a priority is defined automatically,
  - said priority is assigned to the measuring signal and
  - the time interval between the measuring periods is specified as a function of the priority,
- wherein

a length of a measuring period is a discrete sampling instant at which a momentary value of the measuring signal is determined, the characteristic value including the determined momentary value if the measuring signal is a signal having an identical magnitude.